



# UNIVERSITY OF TORONTO

## UNIVERSITY EXTENSION

DIRECTOR: J. R. COULTER, B.A.

ASSISTANT DIRECTOR: W. R. J. KIRK, M.A.

### BUSINESS AND INDUSTRY COURSES

Session 1956 - 1957

20 lectures

### CHEMICAL MATHEMATICS

Wednesday evenings

Mathematics is one of the essential tools of the chemist. It is useful in every field of chemistry and in science generally. In fact, it is often very difficult and, at times, impossible to practise chemistry without a working knowledge of higher mathematics.

This course has been arranged in cooperation with the Chemical Institute of Canada for chemists and chemical engineers in the Toronto area. It will provide a much needed opportunity to review the basic principles of mathematics and to gain facility in their application by actual practice. The course will consist of both lectures and classroom work in an informal atmosphere and will in effect be a "mathematics workshop". To make the students feel at home, as many examples as possible will be drawn from the field of chemistry. This will also make an excellent introduction to the refresher course in physical chemistry planned for next year.

### Course Outline

Introduction to calculus  
Differentiation  
Integration and methods of integration  
Simple differential equations  
Partial differentials

Introduction to analytical geometry  
Properties of various curves  
Infinite Series  
Complex number  
Analysis of data, probability of error.

LECTURER: Professor M.W. Lister, M.A., D.Phil. Oxon.  
Department of Chemistry, University of Toronto.

TIME: Wednesdays, 8:00 p.m., commencing October 3rd.

PLACE: Room 2034, Wallberg Building

FEE: \$25.00

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Q. A. Anderson

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